



U.S. DEPARTMENT OF DEFENSE

FISCAL YEAR 2000 THROUGH 2004
ACCOMPLISHMENTS
BREAKDOWN OF PROJECTS BY DISTRICT
(as of June 1, 2004)

STATEWIDE

Biosystems Technology Project – \$19.5 million (FY00 - FY03)

Funding supported the development of environmentally sensitive products and services for the military and commercial sector.

Brown Tree Snake Control – \$5 million

The funding would be used to continue the military's efforts to prevent brown tree snakes from leaving Guam, where they are prevalent and responsible for destroying much of Guam's unique ecosystem, on military transports flying to Hawaii. The program is key to keeping brown tree snakes out of Hawaii.

Hawaii National Guard Counterdrug Program – \$13 million

The funds for this ongoing program would be used to enhance drug interdiction activities at Hawaii's ports of entry, support antidrug programs targeting youths, and provide backup to the counties' law enforcement efforts.

Hawaii National Guard Helicopters – \$80.46 million (FY00 - 02)

Supported the purchase of 8 UH-60 Black Hawk helicopters and related upgrades.

Theater Undersea Warfare Initiative (TUSW) – \$18.8 million (Since FY02)

This funding is improve submarine detection capabilities. The project also involves using the Maui High Performance Center, and work on Kauai.

Defense Dependents Education Support and School Repairs – \$25.5 million

The appropriation would be used to support school construction and additional resources to aid Hawaii public schools with large numbers of military dependents.

Army Conservation and Ecosystem Management – \$15.7 million

The appropriation supports Army environmental mitigation and remediation initiatives, with a focus on Pohakuloa and Makua Valley.

U.S. Army, Pacific Command (USARPAC) C41 – \$48.3 million (Since FY01)

These funds support USARPAC's command, control, communications, computer, and intelligence system, known as C41. This system is crucial to USARPAC's ability to manage information. Funds would also be used to continue a demonstration project on the Big Island to test communications interoperability of county, State, and federal agencies to combat terrorists and criminals.

Hawaii Technology Development Venture – \$6.8 million (FY04)

Funding for this new initiative will support the commercialization of defense and homeland security technologies, and support Hawaii's small businesses with technologies interest to national defense.

Marine Fire Training Center at Barbers Point – \$2.6 million (FY01 & FY02)

These funds were used to support the Firefighting Training Center at Barber's Point, Hawaii. The Center offers important fire fighting training for civilians and military personnel. It is scheduled to open in July of 2004.

LISTING OF MISCELLANEOUS STATEWIDE PROJECTS BY YEAR

FY00

Hawaii National Guard F-15 Communication Data Link -- \$17.5 million (Hawaii received a portion of the total)

FY01

Quarantine Benefits – \$1 million

Pacific Air Force Strategic Airlift Feasibility Study – \$1.75 million

FY02

Violence Study – \$3 million

Pacific Server Consolidation – \$4.2 million

SAIL – \$3 million

C-17 Planning – \$850,000

Transformation Planning – \$4.25 million

FY03

PACAF Server – \$6.8 million (Funding shared among Pacific military units.)

LSC(X) – \$10.2 million

Army National Guard Combat Search and Rescue Modifications – \$2.6 million

C-17 Airlift Support – \$1.5 million

OAHU

Pearl Harbor Naval Shipyard – \$351.7 million (FY03 & FY04)

Pearl Harbor, the largest ship repair site between Asia and the West Coast of the United States, has a significant role in the nation's defense. These funds provide for additional equipment and needed upgrades and for a major refueling overhaul. In addition, funding has supported an apprentice program with about 100 apprentices per year for a total to date of about 500. The first class graduated in 2003.

Wave Power Demonstration Project – \$9.4 million (FY02 & FY04)

The Navy and the Defense Advanced Research Projects Agency have been developing a new technology that shows great promise for low-cost, easily deployed, and readily available electric power generation at ocean sites. This technology is based upon converting the energy of ocean waves to electricity.

Hickam Air Force Base Alternative Fuel Vehicles Program – \$5.6 million (Since FY01)

The funding continues Hickam's participation in the testing and operation of a fleet of battery-powered electric vehicles.

Advanced Lifting Body Ship Research – \$10.95 million (Since FY03)

The Navy is examining advanced hull form technologies to incorporate into its next generation of ships, which must be more efficient, stable, faster, and less costly. The appropriation supports a technology that has the likelihood of achieving these goals, and which has been developed locally.

Littoral Airborne Sensor/Hyperspectral (LASH); Mine Countermeasures, Anti-Submarine Warfare, Airship, Technology Research & Land Mine Detection – \$72.25 million

Funding continues research on LASH technology to provide real-time surveillance and detection of submarines and smaller objects, such as mines, in relatively shallow waters, and on land. This technology, mounted on the bottom of airplanes, is an important part of the military's anti-submarine warfare and mine countermeasures programs.

Fusion Processor and Integrated Contextual Reasoning – \$9.8 million (Since FY03)

This funding supports the development of a real-time, dedicated processor for linking data from multiple sensors, and provides the Navy with a more accurate targeting and intelligence-gathering capability.

Corrosion Prevention and Control Program – \$11.3 million (Since FY03)

This program seeks to limit the corrosion of equipment and vehicles that operate under harsh environmental conditions and in particular in the Pacific.

Hyperspectral Modular Upgrade – \$14.1 million

This initiative enables the Navy Research Lab to use hyperspectral reconnaissance to detect targets not discernable by conventional methods.

SWATH Ship and Related Technology – \$33.5 million (FY00 - FY03)

These funds support the development of advanced trailer design, a new littoral support craft, a small hydrofoil water plane.

LISTING OF MISCELLANEOUS OAHU PROJECTS BY YEAR

FY00

Ford Island Development – \$8 million

Photomagnetic Materials – \$500,000

FY01

Re-interment of Remains at Kaneohe - \$500,000

FY02

High Data Rate Communications – \$4.3 million

Hyperspectral Fusion – \$4.5 million

FY03

High Data Rate Communications – \$4.3 million

Sanitary Spaces – \$2.5 million

Photovoltaic Energy Park -- \$2.5 million

FY04

SEE RESCUE Distress Streamer – \$2.96 million

Transformation Preparation – \$17.5 million

Proton Exchange Membrane Fuel Cell Trial – \$2.96 million

Sea Test for Towed Acoustic Arrays -- \$2 million

High-Performance Metal Fiber Brushes – \$8.7 million

Man Overboard Identification System – \$7 million

Combined Operations Wide Area Network (COWAN) – \$6.4 million

Clear Water Rinse Facility – \$2 million

Plasma Arc/Waste to Energy Production – \$3.4 million

Airborne Reconnaissance Program – \$4 million

Consolidated Undersea Situational Awareness System (CUSAS) – \$4 million

BIG ISLAND

Thin Layer Chromatography – \$8.1 million (Since FY01)

This program is for developing field test kits that use thin-layer chromatography technology to detect whether unexploded ordnance is polluting the environment.

Center of Excellence for Research in Ocean Studies (CEROS) – \$29.7 million

The appropriation would be used to foster technology development and commercial use of ocean and marine research through CEROS, a Big Island-based project that seeks to advance innovative concepts and new approaches to technology for the U.S. Department of Defense.

KAUAI/PACIFIC MISSILE RANGE FACILITY (PMRF)

Upgrades/Operations Support; Range Command and Control Display Upgrade – \$233.8 million

PMRF is the world's largest instrumented, multi-environment range capable of supporting surface, subsurface, air, and space operations. It has an instrumented underwater range of 1,000 square miles, and controlled airspace of more than 42,000 square miles, making PMRF one of the world's best facilities for supporting operations that vary from small, single-unit exercises to large, multiple-unit battle group scenarios. These funds support necessary upgrades and equipment to ensure its ability to monitor and display data collected during tests and exercises at the range, as well as remain in the cutting edge in terms of testing and training capabilities.

Advanced Integrated Radar Electronics and Photonics (AIREP) – \$62.3 million (Since FY01)

This is a follow-up program to the UHF Electronically Scanned Array radar for the Navy's Advanced Hawkeye E-2C, an all-weather, carrier-based tactical airborne warning and control system aircraft used by carrier battle groups. The project demonstration is located at the Mountaintop Test Bed on Makaha Ridge, Kauai, at PMRF.

Kauai Test Facility – \$19.4 million

The activities of the Kauai Test Facility, operated by Sandia National Laboratories and owned by the U.S. Department of Energy, include launches with realistic trajectories that provide a target for sensors and interceptors that are being tested.

Maritime Synthetic Range – \$17.5 million (Since FY01)

This continuing program simulates targets for tracking and surveillance tests.

Mobile Modular Command Center (M2C2) – \$14.75 million (Since FY03)

M2C2 is a follow-up to Tactical Component Network, used by land and naval forces for improved communication.

Silicon Thick Film Mirror Coatings – \$16.4 million

Funds would be used to continue research and manufacturing of hard, corrosion-resistant optical coatings for mirrors with space missile defense and commercial applications.

Network Application Integration Facility (NAIF) – \$80.25 million (Since FY01)

NAIF is a demonstration and development hub for the global Tactical Component Network (TCN) that is being deployed to multiple Navy platforms to greatly improve the Navy's awareness and assessment of specific situations.

Optical Sensors (SHOTS) – \$19.05 million

This funding would support PMRF's missile defense activities with sensors that can better collect data from missile launches and intercept tests.

Strategic Materials – \$16.05 million

This is an ongoing project to develop technologies for the manufacture of strategic materials, specifically low-cost, corrosive-resistant ceramics and ceramic matrix composite materials.

UESA Antennae and Signal Processing at Makaha Ridge -- \$10.4 million (FY00 & FY02)

These funds support development of a sensor integration capability at PMRF to support the UHF Electronically Scanned Array Antenna.

Cooperative Engagement Capability Research and Improvements – \$25 million (FY01)

Funds intended to accelerate the Navy's Theater Air and Missile Defense programs. Research initiatives are conducted at PMRF.

Network Centric Warfare Testbed – \$1.5 million (since FY02)

These funds support the installation of new software programs in Navy ships to allow for a timely sharing of information.

Virtual Range – \$4.3 million (FY01 & FY02)

This initiative allows for simulation of targets for tracking and surveillance tests.

Common Affordable Radar Processor – \$10.25 million (Since FY03)

This program provides an affordable, high performance processing capability for Navy radar systems using commercial technologies.

LISTING OF MISCELLANEOUS KAUAI PROJECTS BY YEAR

FY04

Multiple-Target-Tracking Optical Sensor-Array Technology (MOST) – \$1 million

Hawaii Undersea Vehicle Test and Training Environment – \$2.1 million

Maritime Directed Energy Test and Evaluation Center (MDETEC) – \$6.73 million

MAUI

Kahoolawe Restoration – \$400⁺ million over ten years

The 10-year program called for the Navy to remove unexploded ordnance, and restore the environment of Kahoolawe. In 1993, Congress passed legislation, authored by Senator Inouye, that recognized the cultural significance of the island, required the Navy to return Kahoolawe, which it had used for target practice, to the State of Hawaii, and remediate the island.

Maui Space Surveillance System (MSSS) – \$125.8 million

MSSS is a state of the art electro-optical facility that combines operational satellite tracking facilities with a research and development arm. It houses the U.S. Department of Defense's largest telescope, the 3.67-meter Advanced Electro Optical System, and several other telescopes.

Maui High Performance Computing Center – \$41.7 million

Funds would be used to support operations at MHPCC, which is owned by the United States Air Force Research Laboratory, and managed by the University of Hawaii. The MHPCC is one of the world's largest IBM SP installations, and provides access to parallel computing hardware, advanced software tools and applications, high bandwidth communications, and high-performance storage technologies.

Pacific Imagery Processing and Exploitation Segment (PIPES) – \$29.85 million

Funding supported a Maui High Performance Computing Center (MHPCC) program of automating imagery collection processing and product generation. This program provides information for the day-to-day operations of the Combatant Commander of the U.S. Pacific Command.

Pacific-Based Joint Information Technology Center – \$23 million (Since FY01)

Funding supported the creation and management of databases, such as the location of military and federal medical supplies worldwide.

PanStars – \$26.6 million (Since FY02)

The appropriation would be used to link a series of telescopes with different sensors on the islands. The Air Force Maui Space Surveillance System, the University of Hawaii Institute of Astronomy, and the Maui High Performance Computing Center are involved in this initiative.

High Accuracy Network Determination System (HANDS) – \$12.5 million (Since FY01)

Funding would continue work on HANDS, which uses relatively low-cost, innovative telescopes to determine orbital information of satellites. HANDS provides greater accuracy in tracking space data through a network of telescopes that would allow the Air Force to better perform its Space Situational Awareness mission.

Advanced Radio Frequency Technology Development – \$6.8 million (Since FY03)

Funding would continue this program in Kihei to conduct space laser communications and sensors research for the national Ballistic Missile Defense Program.

Project Endeavor – \$7.8 million (Since FY02)

Funding supports a continuing ship modeling program with the Maui High Performance Computing Center (MHPCC), the University of Hawaii, and academic partners. One of the areas of exploration is developing new and more efficient hull forms.

Applications of LIDAR to Vehicles with Analysis (ALVA) – \$20 million (Since FY03)

The capability to perform critical Air Force missions can be significantly enhanced through the application of technology developed under ALVA. Applications include long-range airborne battlefield surveillance.

Pacific Disaster Center – \$39 million

The Center, in operation since February 1996, is a federal information processing and modeling facility that supports emergency disaster management activities in the Pacific Ocean and Indian Ocean regions.

Project Albert – \$22.2 million

This ongoing project applies chaos theory to complex, combat situations by using computer models. The Maui High Performance Computing Center is a key partner in the research program.

AEOS Medium Wave Infrared Adaptive Optics – \$6 million (Since FY02)

Funds support the installation of medium-wave infrared adaptive optics for the Advanced Electro Optical System (AEOS).

Photo conduction on Active Pixel Sensors -- \$16 million (FY00 - FY02)

These funds supported new microchip technology for missile defense and commercial camera technologies.

Laser Communications Demonstration -- \$8 million (FY00 - FY01)

These funds were used to develop the capability of telescopes to communicate with satellites through lasers.

Field Laser Radar Demonstration (FLD) Upgrades – \$21.5 million (FY00 - FY02)

These funds support the design of a field laser radar demonstrator.

Advanced Airborne Sensor – \$15.1 million (FY00 - FY02)

These funds support the integration of a laser radar system on-board an existing surveillance aircraft.

LISTING OF MISCELLANEOUS MAUI COUNTY PROJECTS BY YEAR

FY02

Open Source Exploitation – \$4.3 million

FY03

Interrogator for High Speed Retro Reflectometer – \$1.7 million

FY04

Unmanned Systems Testbed Project – \$2.6 million

Porous Silicon – \$2.6 million

Computational Proteomics – \$3 million

HEALTH

Center for Excellence in Disaster Management and Humanitarian Assistance (COE) – \$22.9 million

Through legislation sponsored by Senator Inouye, the COE was established in 1994, and is operated as a partnership involving the U.S. Pacific Command, the Pacific Regional Medical Command, the Centers for Disease Control and Prevention, and the University of Hawaii. Funding provides education, training, and research in civilian-military operations, particularly efforts that require international disaster management, humanitarian assistance, and interagency coordination.

Pacific Island Health Care Referral – \$26.05 million

Appropriation continues the Pacific Island Health Care initiative, utilizing telemedicine, and, as needed, transportation and medical care to the medically underserved U.S.-associated Pacific islands. The program provides U.S. military medical personnel with valuable training.

Tripler Army Medical Center's AKAMAI II, Telemedicine Initiative – \$107.5 million

AKAMAI II supports the development of telemedicine technology and its transfer to improve the quality of care received by military families and federal beneficiaries. It also supports the development of cutting edge medical technologies for possible commercialization.

Automated Clinical Practice Guidelines – \$34.1 million

The funds would be for Tripler's partnership with the Henry Ford Clinic program to develop Automated Clinical Practice Guidelines that assist practitioners and patients in choosing appropriate health care strategies for the prevention, diagnosis, treatment, and management of selected conditions.

Tissue Development on Elastin Biomatrixes – \$13.25 million (Since FY02)

This project supports the development of biotechnology which can grow replacement blood and tissue for use after battlefield injuries.

LISTING OF MISCELLANEOUS HEALTH PROJECTS BY YEAR

FY01

Health Animal Research Lab Feasibility Study/Biomedical Research Feasibility Study – \$1 million

FY04

Portable Digital X-Ray Development – \$1 million

UNIVERSITY OF HAWAII

Hawaii Energy and Environmental Technology (HEET) – \$11.75 million (Since FY01)

HEET is an ongoing University of Hawaii program that may provide the military with cheaper, better-running fuel cells. It has a fuel cell test facility on Hawaiian Electric property in downtown Honolulu that is equipped with test stations to evaluate fuel cells.

Pacific Rim Corrosion Research Program – \$6.55 million (Since FY02)

Funds support ongoing research at the University of Hawaii to find ways to limit corrosion on Army equipment under different climatic conditions, and in particular, in the Pacific.

Integrated Aircraft Health Management – \$19.55 million (Since FY03)

Funds support a partnership between Boeing and the University of Hawaii to improve the military's ability to maintain aircraft.

Semi-Autonomous Underwater Vehicle (SAUVIM) – \$6.2 million

Funds support the University of Hawaii's research on an underwater robotic vehicle for the Navy.

Remote Ocean Sensing Program – \$19.1 million (FY00 & FY02)

This initiative supports the research and development of an advanced wavelength-agile optical imaging system to detect airborne materials.

Adaptive Damping and Positioning – \$2.45 million (FY00 - FY02)

These research program is working to develop new technology to remove vibrations in space sensors to allow for precise tracking measurements.

LISTING OF MISCELLANEOUS UNIVERSITY OF HAWAII PROJECTS BY YEAR

FY02

Marine Mammals – \$1 million

FY04

RCUH Engineering Design Center – \$500,000